With Dr Jordan's compliments

HEATON NORRIS
OFFICES:-
79, HEATON MOOR ROAD
URBAN DISTRICT COUNCIL

REPORT

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MEDICAL OFFICER OF HEALTH.

FOR THE YEAR 1895.

HEATON NORRIS DISTRICT COUNCIL.

B.50.4.96.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

TO THE

HEATON NORRIS DISTRICT COUNCIL,

For the Year 1895.

A Summary of the Action taken during the year to prevent the spread of Disease.

IN the first quarter of the year with the usual prevalence of general sickness there was a fair amount of Epidemic Influenza, but very little ordinary Infectious Disease. April was rather more healthy. In May the sickness-rate increased, and during the rest of the year the District was fairly healthy. During the hot weather there were a few cases of Enteric Fever, more than is customary in this locality.

On the whole, the year was by no means an unhealthy one, due, no doubt, to the great amount of fine sunny weather which we experienced.

The following table gives the incidence of Notifiable Disease :—

	Scarlet Fever.										Diph-theria	M.Croup	Typhoid Fever					Erysip-elas		
	Jan.	Feb.	March	April	May	July	Aug.	Sept.	Oct.	Dec.	May	Nov.	March	May	July	Sept.	Oct.	July	Dec.	Totals
Heaton Chapel Ward	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2
Heaton Moor East Ward...	1	0	0	0	1	1	1	1	1	1	0	0	0	1	1	0	0	1	0	10
Heaton Moor West Ward...	1	0	1	0	0	0	0	1	1	0	1	1	0	0	1	2	0	0	0	9
Heaton Mersey Ward	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	0	1	1	1	7
Total......	2	1	1	1	2	2	1	2	2	1	1	1	1	1	2	2	2	2	1	28
1895	15										1	1	8					3		28
1894	38										6	0	1					2		47

Of these cases there died in their own homes :—

Scarlet Fever - 1, in East Ward.
Diphtheria - 1, in West Ward.
Membraneous Croup 1, in West Ward.

Sent to Hospital: 1 case of Typhoid Fever from Heaton Mersey, which died.

Of Infectious Deseases, there were reported in

1890	32 cases	1893	147 cases
1891	36 ,,	1894	47 ,,
1892	30 ,,	1895	28 ,,

In the past year we had very little infectious disease to deal with. The cases of Scarlet Fever were much fewer than in previous years, and there was no epidemic. The cases of Typhoid Fever were more numerous, but they were scattered, and were not due to any common cause, and though each case was thoroughly inquired into; in only one instance was a definite origin discovered. Disinfection was done in all cases of these diseases where the services of the Nuisance Inspector were requested. With regard to the only case that was removed to Hospital, I reported to you in October the difficulty we had in finding a place where the patient could be accommodated;had we not been successful the consequences might have been serious as the case occurred in a crowded locality. I urged the desirableness of making better provision for such diseases, as an epidemic of some highly infectious disease such as Scarlet Fever would place us in a difficulty as regards isolation and the prevention of spread of the disorder.

In November, I drew attention to the concluding paragraph in the Annual Report of the Medical Officer of Health for the County, and I asked next month to be supplied with a list of registered milk sellers, cow-keepers, bake-houses, and slaughter-houses.

Account of the Sanitary state of the District generally at the end of the year.

I am glad to be able to draw attention here to the absence of my perennial complaint of the ashpits and privies at Heaton Mersey. The old structures have been removed, and new ones erected in detached pairs, one to each cottage, as I have repeatedly advised.

Two large areas, each 4½ acres in extent, have been set apart for recreation grounds in the District, viz :—one at Heaton Mersey, and one at Heaton Moor, in salubrious situations. They have been railed in and are in process of adornment. These grounds will be a great boon to the young people, will make for health, and will be highly appreciated.

During the year, a second series of tanks and filtering beds have been constructed, which, with the method of purification adopted, should form an ideal system of sewage treatment, and to judge from the favourable reports I see in the newspapers of the condition of the effluent by the

Chemist of the County Council, should satisfy the most fastidious persons who take an interest in the condition of our rivers.

Account of inquiries made as to conditions injurious to health existing in the District, and the proceedings in which the Medical Officer of Health has taken part, or advised under the Public Health Act, 1875.

Investigations have been made into the following complaints:—

Drain Nuisances	9
Inquiries in regard to Typhoid Fever	8
„ „ Diphtheria	1
Privy and Ashpit Nuisances	5
Vegetable and Manure Nuisances	2
Inquiries regarding keeping of pigs and fowls	2
„ „ the Water Supply	5
Comments on draft Bye-laws	1
Orange Peel Nuisance	1
Letters on various subjects	many
Disinfection and cleansing after cancer and Pneumonia	2
Special Reports	2

DRAIN NUISANCES.

One arose from a corner of new addition to house being built over a drain and thereby damaging it, causing entrance of sewer gas into the dwelling. The drain when opened up, was found to have been constructed of broken and damaged pipes. This case shews the necessity of close examination of all new drains, to see that pipes of first-class quality are used, and also, the relation of all new additions to houses to the previously existing drains. I found in connection with this case that the Council was now employing disconnecting traps in the drains before it joins the main sewer, a plan which I have advocated for some years, and which ought to be adopted in all cases. This plan, satisfactory so far as it goes, is not complete without proper ventilation of the house drains.

Another nuisance I had considerable difficulty in getting remedied, and was the subject of a special report. It was in connection with a new building. Examination disclosed defects which ought not to have existed.

A case recently brought before my notice shews that there are still houses unconnected with the main sewer. This arrangement should not be allowed to exist any longer. The difficulty, I believe, is under consideration, and before long will be met in a satisfactory manner.

Each case of Typhoid Fever involved inquiry into all circumstances which might give rise to the illness, correspondence, &c. Only in one case, contracted at the seaside, was a definite cause discovered, viz., infected milk.

Sanitary conditions were inquired into in connection with other diseases such as Sore Throats, Pneumonia, and English Cholera,involving correspondence with other Medical Officers of Health.

ASHPIT NUISANCES.

These were of the ordinary character. I reported specially on those at Heaton Mersey in May ; they have since been replaced by efficient structures, which, though unavoidably unsightly from their situation, will be much more fatisfactory from a health point of view.

DECAYING VEGETABLE MATTER

Manure, and the keeping of animals formed the subjects of inquiries. The tip is now filled up, and the surface covered with soil.

I suggested notices being sent out to put a stop to the orange peel nuisance on the footpaths.

WATER SUPPLY.

There was only one serious complaint, and that was an insufficient supply. I had several letters from the Water Company, stating that owing to necessary repairs, I might possibly hear of the dirtiness of the water. I certainly did hear from several people, but the complaints were few and not of serious character.

LETTERS.

One was about an unreported case of Scarlet Fever; and another recommending disinfection after a death from Phthisis; another one to Barnes' Home on the possibility of Scarlet Fever arising amongst the inmates; and others with various Medical Officers of Health as to cases of Infectious Disease arising in each others' Districts, involving possible spread of the disorder.

Tabular Statement of Mortality within the District, classified according to Diseases, Ages, and Localities.

The area of the District is 1594 acres,and the population at the middle of 1895 may be taken at 8172. This is the previous estimated population, together with half the number of births registered during the year.

During the year 104 deaths were reported; of these 10 occurred at Mauldeth, viz., 4 males and 6 females; and are to be excluded in calculating the Death-rate. The Coroner held 4 inquiries. The number of deaths to be accounted for is thus 94, viz., 48 males and 46 females, as compared with 45 and 38 respectively, last year.

94 deaths are equivalent to a death-rate of 11·5 per 1000 of population. The death-rate for the whole country was 18·7.

The deaths in each month were—

January	8	April	5	July	5	October	10
February	9	May	10	August	5	November	7
March	9	June	13	September	8	December	5

The following table gives the mortality in each Ward.

Ward	Population	No. of Deaths	Death-Rate
Heaton Chapel	1808	11	6·08
Heaton Moor East	1873	14	7·47
Heaton Moor West	1903	31	16·29
Heaton Mersey	2588	38	14·68
Whole District............	8172	94	11·50

The births were 145, viz., 78 boys, 67 girls, as compared with 90 and 84 respectively last year.

145 births are equivalent to a birth-rate of 17·75 per 1000 of population. The birth-rate for the whole country was 30·3.

The following table gives the number of deaths at all ages, and from the principal diseases.

	Mortality from all causes at subjoined ages.								Mortality from subjoined causes distinguishing deaths of children under 5 yrs. of age								
	At all ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards		Scarlet Fever	Diphtheria	Membrans. Croup	Phthisis	Bronchitis, Pneumonia and Pleurisy	Heart Disease	Injuries	All other diseases	*Totals*
Heaton Chapel Ward	11	3	1	0	0	4	3	Under 5	0	0	0	0	2	0	0	2	4
								5 and upwards..	0	0	0	1	2	0	0	4	7
Heaton Moor East Ward ...	14	0	3	1	2	5	3	Under 5	1	0	0	0	1	0	0	1	3
								5 and upwards..	0	0	0	1	1	3	0	6	11
Heaton Moor West Ward ...	31	1	2	1	2	17	8	Under 5	0	0	1	0	0	0	0	2	3
								5 and upwards..	0	1	0	1	5	2	2	17	28
Heaton Mersey Ward	38	13	3	2	1	13	6	Under 5	0	0	0	1	5	0	0	10	16
								5 and upwards..	0	0	0	2	4	4	1	11	22
Total ...	94	17	9	4	5	39	20	Under 5	1	0	1	1	8	0	0	15	26
								5 and upwards..	0	1	0	5	12	9	3	38	68
Deaths occurring within the District of persons not belonging thereto, at Mauldeth Hospital	10	0	0	0	0	5	5	Under 5	0	0	0	0	0	0	0	0	0
								5 and upwards..	0	0	0	0	1	0	0	9	10

Of children under 1 year 17 deaths are recorded. This is equal to an infant mortality of 117·24 per 1000 births, or 18 per cent of total deaths.

(For the whole country these are respectively 161 and 26).

Of children aged 1 year and under 5, there are 9 deaths recorded. This is equal to 9·5 per cent of total deaths.

There were 3 deaths from the ordinary infectious diseases, equal to a death-rate of 0·36 per 1000 of population, (for the whole country 2·14); or 3·2 per cent of total deaths.

The following table gives these figures along with those of previous years.

Year	Population.	Death-Rate.	Birth-Rate	Infant Mortality	Zymotic Death-Rate
Average of 10 years 1882–91...	6672	11·52	20·23	19·80	1·26
1891	7150	10·76	17·77	11·68	1·12
1892	7440	13·03	18·80	17·52	0·67
1893	7500	13·70	16·40	15·63	1·46
1894	8000	10·37	21·75	18·00	1·00
1895	8172	11·50	17·74	18·00	0·36

The following table gives the number of deaths at various age-groups compared with previous years—

Year	At all ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards
1892	97	17	7	6	2	41	24
1893	103	16	7	14	8	35	23
1894	83	15	10	2	1	35	20
1895	94	17	9	4	5	39	20

The following table shews the number of deaths from the ordinary infectious diseases—

	Average for 10 years, 1882–91.	1891	1892	1893	1894	1895	Average for last 5 years.
Measles..................	1·3	1	0	0	6	0	1·4
Scarlet Fever	1·0	3	0	3	0	1	1·4
Diphtheria & MCroup	1·0	0	2	4	1	2	1·8
Whooping Cough ...	1·7	2	3	1	0	0	1·2
Enteric Fever	1·5	1	0	1	1	0	0·6
Diarrhœa	2·0	1	0	3	0	0	0·8
Total......	8·5	8	5	12	8	3	7·2

Compare this table with the following one which gives the number of cases of illness of those of the above diseases which have to be notified to me.

	1890 8 mths.	1891	1892	1893	1894	1895
Scarlet Fever	21	21	11	107	38	15
Diphtheria & M. Croup	6	11	13	27	6	2
Enteric Fever	2	3	5	5	1	8

The following table shews the mortality from certain classes of disease, the proportion to population, and to 100 deaths.

	Total Deaths	Deaths per 1000 of population	Proportion of Deaths to 100 Deaths.
Seven principal Zymotic Diseases..	3	0·36	3·2
Bronchitis and Pneumonia, not including Phthisis......	20	2·44	21·2
Tubercular Diseases, (Phthisis, Scrofula, Rickets, Tabes).........	6	0·72	6·4
Wasting Diseases (Atrophy, Debility, and Premature Birth)	6	0·72	6·4
Convulsive Diseases	3	0·36	3·2

With regard to these statistics, it is noticeable that as compared with last year when the mortality was low all over the country, there is an increase of 11 deaths, and the births are considerably fewer.

The increase in the number of deaths is due principally to the large number of fatalities from acute chest disease (Bronchitis, &c)., 20 as compared with 11 last year. Then there were 6 deaths registered from Epidemic Influenza. No doubt many of the cases of Pneumonia had an Influenza origin.

METEOROLOGICAL REPORT, 1895.

JANUARY.—Fine, bright, frosty weather till the 9th when a change of wind from the north west to south east brought wet and fog; snow fell during a gale on 12th, weather became warmer and much rain fell; towards end of month we had snow and north west winds. The first half of month was fine and bright, with a fair sprinkling of sunshine. On the 24th during a hailstorm there was a flash of lightning. Mist observed on 11 days.

FEBRUARY.—For 3 weeks weather was fine, bright, frosty and sunny with easterly and south easteely breezes; a change of wind to N.W. raised the temperature and brought on a thaw with dull stormy weather. Mist observed on 13 days.

MARCH.—A period of fine, bright, sunny, warm weather was interrupted by a couple of days of dulness and wet with S. W. winds. The sun re-appeared and we had a short spell of brilliant weather, (one day was decidedly hot). In the latter half of month we had westerly winds with much rain; several days were stormy, especially the 24th, and thunder was heard on the 25th. Mist observed on 6 days.

APRIL.—The weather on the whole was bright and sunny and warm. It was cold at the beginning and middle when the wind was easterly. The latter half of month was dull and wet with S.W. winds, with a fair sprinkling of brightness and sunshine. It was so warm for the last 11 days that fires were dispensed with in the sitting rooms. Mist observed on 4 days.

MAY.—First half of month fine, bright, sunny and very hot, the wind then changed from E. to N. W. and brought on a storm on the 15th. There was a little snow on the 17th.

A short spell of cold weather with thunder on the 22nd and 24th, was succeeded by weather similar to that at the beginning of the month. There was a thunderstorm on the last day. Thick haze on several days.

JUNE.—A few days warm and dull were succeeded by fine, bright, sunny, hot weather, with refreshing breezes. We had occasional showers, and the temperature and winds were very varied. On the 15th there was a dense white frost, (temperature on the grass 16·2). A heavy thunderstorm on the 26th was followed by wet and thundery weather.

JULY.—Fine, sunny, and warm for ten days, with W.N.W. winds, the rest of the month very wet, the winds becoming more southerly. Thunderstorm on the 26th. The weather near the end of the month being hot and close.

AUGUST.—First half of month dull, warm and wet; bright and sunny at times. In the middle, there was no rain for a week, after that it was wet, windy and stormy. Thunder on the 10th and 23rd Wind mostly S.W.

SEPTEMBER.—Was fine, bright, sunny and hot. There were occasional showers during the first half of the month, and a heavy thunderstorm on the 3rd, and it was stormy on the 11th. The prevailing winds were westerly, verging towards the S.E., at the close of the month.

OCTOBER.—Was dull, wet and cold, with occasional bright, sunny intervals; recommenced fires on the 3rd, stormy at the beginning. The first snow of the season on the 24th. Frosty and misty at end of month. Winds very varied.

NOVEMBER.—Excepting 4 fine days at the commencement with easterly winds, the weather was generally wet and warm. Storms on the 16th and 10th from the S.W., (very low barometer 28·852), bright and sunny at times; high wind occasionally. S.W. winds prevailed mostly, but became more easterly at the close. Dense fog on the 30th.

DECEMBER.—Bright, warm, damp weather, changed on the 4th to storm from the N.W. which lasted 3 days, the last day being the worst. The rest of month was dull, fine and cold with S.E. winds, sunshine occasionally. A stormy outdreak occurred round the 24th, and there was dense fog on the 20th, particularly at night. The year closed in dull, warm muggy weather.

The weather in 1895 was sufficiently remarkable as to deserve a more extended notice than I have given in former reports. I hope, therefore, the following notes will be of interest.

	Mean Reading of Barometer.		Mean daily temperature.		Rainfall in inches	
	1894	1895	1894	1895	1894	1895
1st Quarter ..	29·771	29·818	41·0	34·0	9·100	5·475
2nd Quarter ..	29·751	29·967	50·9	51·7	7·565	4·645
3rd Quarter...	29·969	29·900	57·1	58·9	7·800	9·820
4th Quarter...	29·709	29·791	45·0	43·9	7·805	9·230
					32·270 on 207 days	29·170 on 186 days

From this table we see that in 1895 the barometric pressure was higher than in the previous year; the summer was hotter; and there was considerably less rain and fewer wet days.

The highest barometric reading was in May, viz.: 30·623 inches; January nearly approached it, 30·616. The lowest reading was in March, 28·634 inches.

With regard to the temperature the points of interest are the prolonged winter cold and the prolonged summer heat. January was cold up to the 13th, when the temperature rose gradually to the 17th; after a fall there was a sudden rise on the 20th and 21st, and it became very low on the 26th. There was another slight rise at the beginning of February, and from the 5th to the 15th it was extremely low, the cold spell lasting until March 15th.

The coldest days were :—

	Lowest temperature on the grass	lowest temperature in the shade, 4ft. above the ground.	Temperature of the earth, 2ft. below the surface, at 9 a.m.
	degrees	degrees	degrees
January 30..	—3·5	21·2	35·0
February 8..	—4·0	13·8	34·5
" 9..	—5·5	12·0	34·0
" 12..	—3·0	14·2	33·5
" 13..	—2·8	15·2	33·2

The temperature gradually rose from its minimum near the middle of February, up to June, attaining its maximum, 83·2 degrees, on the 25th ; it remained steadily high, reached 81·2 at the end of September, and then rapidly fell, causing a severe frost in the latter part of October. The weather became much warmer in November, and cooled again in the third week of December; the year closing with a rising thermometer, temperature 48 degrees.

The mean daily temperature of the air is obtained by applying a suitable correction to the observations of the maximum and minimum thermometers contained in a screen 4 feet above the surface of the earth.

The mean daily temperature for the

1st wk. Jan. was	31·2	and the mean of 50 yrs for England	36·5
2nd ,, ,,	31·1	,, ,, ,,	36·0
3rd ,, ,,	36·7	,, ,, ,,	36·7
4th ,, ,,	27·7	,, ,, ,,	37·7
For the month	32·3	,, ,, ,,	37·7
1st wk. Feb. was	29·8	,, ,, ,,	38·0
2nd ,, ,,	23·9	,, ,, ,,	39·0
3rd ,, ,,	29·9	,, ,, ,,	39·0
4th ,, ,,	33·5	,, ,, ,,	39.0
For the month	29·2	,, ,, ,,	38·7

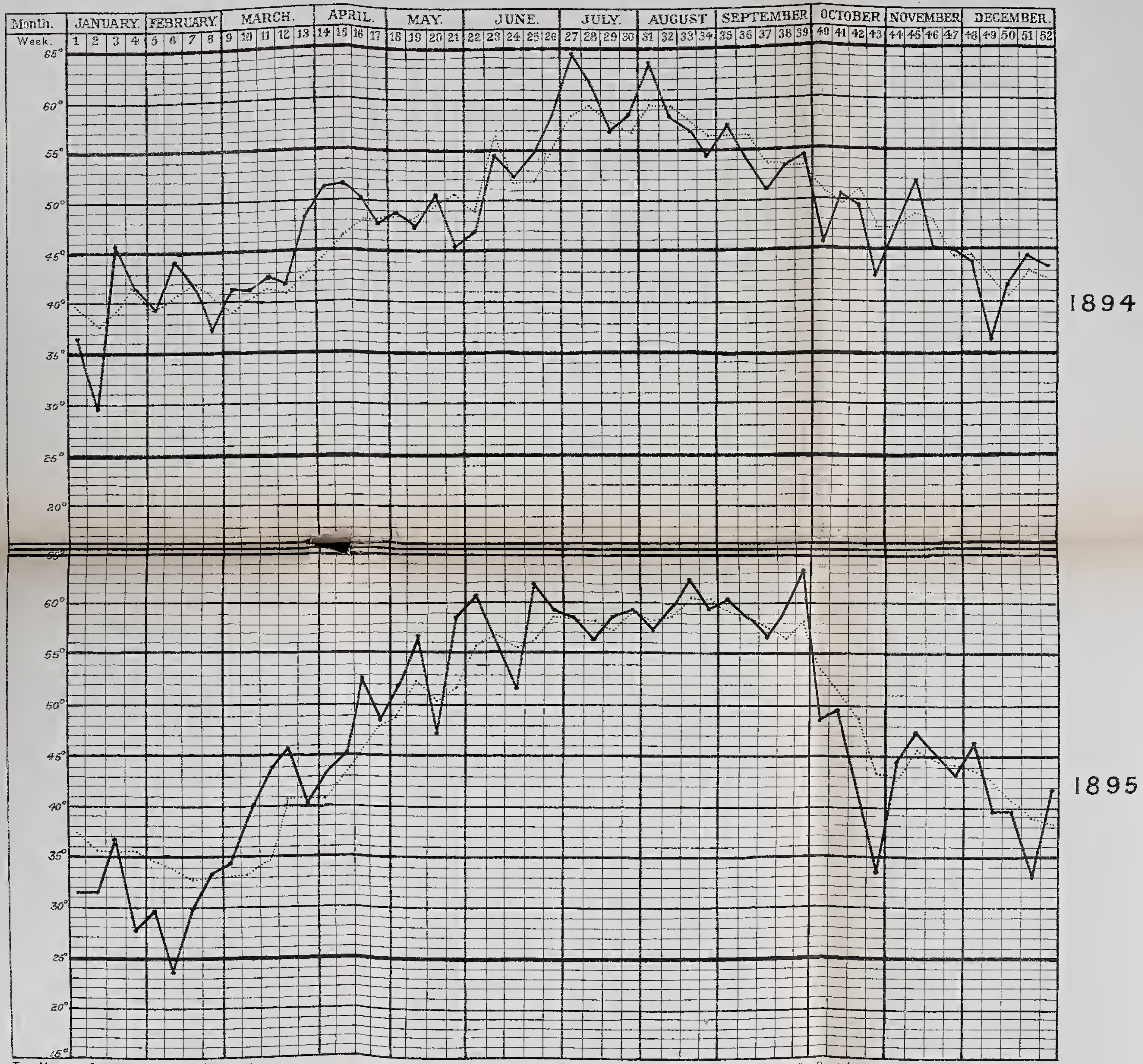
For 1894 the mean daily temperature curve is about normal; the 1895 curve is a most unusual one; its remarkableness lies in the fact that its apex is not quite so high as that of 1894, and it forms a rounder arch or one much less pointed (see chart). This is owing to the temperature rising rapidly and more regularly in the spring of the year, the acme being sustained for a longer period, and the fall occurring suddenly. The rise of the curve in November forming a subsidiary arch.

As usual, the curve of the ground temperature, 2ft. below the surface, corresponds very closely with that of the mean daily temperature of the air. It is more uniform and less subject to fluctuation, because the earth absorbs heat more slowly and parts with its heat less readily than does the atmosphere, hence its temperature curve is generally in advance of the latter, because its variations occur later in point of time.

The freezing of water pipes caused considerable inconvenience in this district; the nature of the ground, and the amount of shade must have had some influence in this respect, because some pipes, fully 2ft. deep, appear to have frozen. My notes show that at 2ft. deep in ground fully exposed, the lowest temperature recorded was 32·8 on Feb. 17 18 and 19; on these dates the grass thermometer was 13 degs., 5·5 degs. and 15·8 degs., and the minimum shade thermometer, 4ft. above the ground was 29·5 degs., 24·2 degs. and 28·0 degs.

The highest temperature in the sun was 135·8 degs. on June 25th., and it is worthy of record that during the hot weather then prevailing, the temperature on the grass went down to 16·2 degs. on the 15th.

There was least moisture in the air at 9 a.m. in June, viz: 70 per cent of total saturation. The finest month was February, it had only 0·295 inch of rain which fell on 4 days. August was the warmest month; May had least cloud viz: 56 per cent of total cloudiness.



THE MEDICAL OFFICER'S OF HEALTH "CHART" ENT. AT STA. HALL *Printed & Published by Danielsson & Co 52, Beaumont St London, W.*

Notes:

The continuous lines represent the mean daily temperature of the air

The dotted lines represent the mean daily temperature of the earth 2 feet below the surface at 9 am.

Summary of METEOROLOGICAL OBSERVATIONS for 1895.

Taken by F. W. JORDAN, M.R.C.S., at Heaton Moor, Lancashire, at 9 a.m. daily.

1895	**BAROMETER** Cistern 240ft. above sea-level. Observations reduced to sea-level and to 32 degs. F.			**TEMPERATURE.**													
				In Shade.					On Grass		Earth, 2ft. deep						
Month	Highest	Lowest	Average	Highest	Lowest	Mean daily temp'rature	Black bulb, highest in sun	Bright Bulb samedayasblk	Highest	Lowest	Highest	Lowest	Average	Average humidity, per cent. 9 a.m.	Rainfall	Days on which Rain fell	Cloud 9 a.m. entirely over-cast, equals 100
JANUARY	30·616	28·921	29·684	42·5	15·0	32·3	79·0	52·0	23·5	−3·5	39·2	35·0	36·0	91	2·400	23	90
FEBRUARY	30·591	29·717	30·113	42·0	12·0	29·2	85·5	52·0	21·0	−5·5	35·0	32·8	33·6	86	0·295	4	84
MARCH	30·377	28·634	29·659	56·8	25·0	40·6	107·0	74·0	35·0	7·0	42·0	33·0	39·5	90	2·780	21	95
APRIL	30·402	29·214	29·871	62·0	30·0	45·1	122·0	80·0	38·0	12·5	48·0	40·0	43·8	78	1·700	12	77
MAY	30·623	29·691	30·076	80·8	35·2	52·5	132·0	95·5	42·5	17·8	56·0	48·0	50·9	71	0·680	8	56
JUNE	30·434	29·572	29·954	83·2	35·2	57·5	135·8	90·5	42·8	16·2	59·0	54·8	56·4	70	2·265	12	65
JULY	30·252	29·377	29·820	78·2	44·0	58·5	131·2	86·0	47·0	24·0	60·2	57·0	57·7	80	5·275	22	87
AUGUST	30·256	29·312	29·766	77·5	43·0	59·6	129·5	90·0	43·5	23·2	61·5	58·0	59·4	79	3·445	19	86
SEPTEMBER	30·397	29·590	30·116	81·2	43·2	58·8	125·8	91·5	44·0	24·0	59·2	55·8	57·9	81	1·100	7	59
OCTOBER	30·555	29·111	29·805	70·5	25·5	47·4	114·0	83·5	42·0	16·0	58·0	41·8	51·1	89	3·250	21	85
NOVEMBER	30·497	28·852	29·827	60·2	34·0	45·0	92·0	62·0	46·5	28·0	46·2	42·5	44·3	89	2·635	20	85
DECEMBER	30·427	28·947	29·741	61·0	24·0	39·5	82·0	57·5	43·5	19·5	44·5	37·2	41·4	89	3·345	17	88
															29·170	186	